

IN THE CLAIMS:

Please cancel Claims 52 to 87 without prejudice or disclaimer of subject matter. Please amend the remaining claims, as follows:

1. (Original) A method for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device, said method comprising the steps of:

accessing a source color data file corresponding to the source device, the source color data file containing source color image data and source device color characteristic data;

constructing a source color transform based on the source device color characteristic data contained in the source color data file; and

applying the source color transform to the source color image data to transform the source color image data from a source device color space into interim color image data in an interim color space.

2. (Original) A method for managing color data according to Claim 1, wherein the source device color characteristic data contains measured colorimetric data and corresponding device signal data.

3. (Original) A method for managing color data according to claim 1, wherein the color data file further contains viewing condition data corresponding to a set of viewing conditions in which the source device color characteristic data was measured.

4. (Original) A method for managing color data according to Claim 3, wherein the viewing condition data includes ambient colorimetric specification data.

5. (Original) A method for managing color data according to Claim 3, wherein the viewing condition data includes surround colorimetric specification data.

6. (Original) A method for managing color data according to Claim 3, wherein the viewing condition data includes background colorimetric specification data.

7. (Original) A method for managing color data according to Claim 3, wherein the viewing condition data includes adapting field colorimetric specification data.

8. (Original) A method for managing color data according to Claim 2, wherein the device signal data represents a set of input command signal values for the source device.

9. (Original) A method for managing color data according to Claim 2, wherein the measured colorimetric data represents a set of measured color values corresponding to a rendered color image.

10. (Original) A method for managing color data according to Claim 2, wherein the device signal data represents a set of output command signal values from the source device.

11. (Original) A method for managing color data according to Claim 2, wherein the measured colorimetric data represents a set of measured color values corresponding to a color image rendered by the source device.

12. (Original) A method for managing color data according to Claim 2, wherein the source device is a printer, wherein the device signal data represents a set of input command signal values for the printer, and wherein the measured colorimetric data represents a set of measured color values corresponding to a color image rendered by the printer.

13. (Original) A method for managing color data according to Claim 2, wherein the source device is a scanner, wherein the measured colorimetric data represents a set of measured color values corresponding to a rendered color image, and wherein the device signal data represents a set of output signal values from the scanner.

14. (Original) A method for managing color data according to Claim 1, further comprising the step of transforming the interim color image data into destination color image data in a destination device color space.

15. (Original) A method for managing color data according to Claim 1, further comprising the step of incorporating the source color transform in a color transformation sequence.

16. (Original) A method for managing color data according to Claim 15, further comprising the step of applying the color transformation sequence to the source color image data to generate destination color image data in a destination device color space.

17. (Original) A method for managing color data according to Claim 14, wherein the step of transforming the interim color image data into destination color image data includes accessing a destination color data file which contains destination device color characteristic data, and constructing a destination color transform based on the destination device color characteristic data, the destination color transform for transforming a set of color data from the interim color space to the destination device color space.

18. (Original) A method for managing color data according to Claim 14, wherein the step of transforming the interim color image data into destination color image

data includes accessing and utilizing a destination device color profile containing a destination color transform, the destination color transform for transforming a set of color data from the interim color space to the destination device color space.

19. (Original) A method for managing color data according to Claim 1, wherein the interim color space is a device-independent color space.

20. (Original) A method for managing color data according to Claim 19, wherein the device-independent color space is a CIE LAB color space.

21. (Original) A method for managing color data according to Claim 19, wherein the device-independent color space is a color space composed of a lightness component, and two orthogonal color components for defining a chroma value and a hue value.

22. (Original) A method for managing color data according to Claim 19, wherein the device-independent color space is a profile connection space.

23. (Original) A method for managing color data according to Claim 1, wherein the source device color characteristic data represents spectral measurement values corresponding to the source device.

24. (Original) A method for managing color data according to Claim 23, wherein the source color data file also contains viewing condition data representing a set of desired viewing conditions.

25. (Original) A method for managing color data according to Claim 24, wherein the construction of the source color transform is also based on the viewing condition data.

26. (Original) A method for managing color data according to claim 23, wherein the construction of the source color transform is also based on a set of desired viewing condition data.

27. (Original) A method for managing color data according to Claim 1, wherein the construction of the source color transform utilizes a color appearance model.

28. (Original) A method for managing color data according to Claim 27, wherein the source color transform is a look-up table.

29. (Original) A method for managing color data according to Claim 27, wherein the source color transform is a polynomial function.

30. (Original) A method for managing color data according to Claim 27, wherein the source color transform is a single-variate transform.

31. (Original) A method for managing color data according to Claim 27, wherein the source color transform is a multi-variate transform.

32. (Original) A method for managing color data according to Claim 1, wherein the construction of the source color transform includes optimizing the source color transform for efficient application to a set of color image data.

33. (Original) A method for managing color data according to Claim 1, wherein the construction of the source color transform is optimized to increase accuracy of a transformation of the source color image data.

34. (Original) A method for managing color data according to Claim 33, wherein the construction of the source color transform is optimized to create a preferred reproduction of the source color image data.

35. (Original) A method for managing color data according to Claim 1, wherein the source color data file is formatted according to a predetermined standardized format.

36. (Original) A method for managing color data according to Claim 35, wherein the source color data file includes a set of tags for the source device color characteristic data.

37. (Original) A method for managing color data according to Claim 35, wherein the source color data file includes a set of tags for a set of viewing condition data corresponding to a set of viewing conditions in which the source device color characteristic data was measured.

38. (Original) A method for managing color data according to Claim 35, wherein the predetermined standardized format is an extended CGATS/IT8 format.

39. (Original) A method for managing color data according to Claim 38, wherein the extended CGATS/IT8 format includes a set of tags for the source device color characteristic data.

40. (Original) A method for managing color data according to Claim 38, wherein the extended CGATS/IT8 format includes a set of tags for a set of viewing condition data corresponding to a set of viewing conditions in which the source device color characteristic data was measured.



41. (Original) A method for managing color data according to Claim 9, wherein the measured colorimetric data is in a standard color space.

42. (Original) A method for managing color data according to Claim 41, wherein the standard color space is an XYZ color space.

43. (Original) A method for managing color data according to Claim 11, wherein the measured colorimetric data is in a standard color space.

44. (Original) A method for managing color data according to claim 43, wherein the standard color space is an XYZ color space.

45. (Original) A method for managing color data according to Claim 1, wherein the construction of the source color transform is based on a type of the interim color space and a color appearance model.

46. (Original) A method for managing color data according to Claim 3, wherein the construction of the source color transform is based on the viewing condition data.

47. (Original) A method for managing color data according to Claim 1, wherein the source color transform is stored in a memory.

48. (Original) A method for managing color data according to Claim 1, wherein the source color transform is stored in a device color profile.

49. (Original) A method for managing color data according to Claim 1, wherein a source gamut boundary description is generated from the source color data file.

50. (Original) A method for managing color data according to Claim 49, wherein the source gamut boundary description is used in conjunction with a destination gamut boundary description and a gamut mapping algorithm to create a gamut transformation.

51. (Currently Amended) A method for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device, said method comprising the steps of:

accessing a source color data file corresponding to the source device, the source color data file containing source device color characteristic data, wherein the source device color characteristic data is being formatted according to a standard predetermined format and has ~~having~~ a plurality of tags containing the source device color characteristic data and a set of viewing condition data corresponding to a set of viewing conditions in which the source device color characteristic data was measured;

constructing a source color transform based on the source device color characteristic data and the set of viewing condition data by utilizing an interim color space

and a color appearance model, the source color transform for transforming the source color image data from a source device color space into an interim color space;

incorporating the source color transform in a color transformation sequence;

and

applying the color transformation sequence to the source color image data to transform the source color image data from the source device color space into a destination device color space.

52. to 87. (Cancelled)

88. (Currently Amended) An apparatus for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device, comprising: a program memory for storing process steps executable to perform a method according to any of Claims 1 to 51, 91 or 92; and a processor for executing the process steps stored in said program memory.

89. (Currently Amended) Computer-executable process steps stored on a computer readable medium, said computer-executable process steps for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 1 to 51, 91 or 92.

90. (Currently Amended) A computer-readable medium which stores computer-executable process steps, the computer-executable process steps to transform source color image data from a source device into destination color image data for rendering by a destination device, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 1 to 51, 91 or 92.

91. (New) A method for managing color data according to Claim 1, wherein the source color data file contains both the source color image data and the source device color characteristic data.

92. (New) A method for managing color data according to Claim 51, wherein the source color data file contains both the source color image data and the source device color characteristic data.

93. (New) A method for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device, said method comprising the steps of:

accessing a color data file corresponding to at least one of the source device and the destination device, the color data file containing device color characteristic data;

constructing a color transform based on the device color characteristic data;

and

applying the color transform to the color image data.

94. (New) A computer-readable medium which stores computer-executable process steps, the computer-executable process steps to transform source color image data from a source device into destination color image data for rendering by a destination device, said computer-executable process steps comprising process steps executable to perform a method according to Claim 93.